

S. 451, Composite Standards Act of 2021

As reported by the Senate Committee on Commerce, Science, and Transportation on December 17, 2022

By Fiscal Year, Millions of Dollars	2022	2022-2026	2022-2031
Direct Spending (Outlays)	0	0	0
Revenues	0	0	0
Increase or Decrease (-) in the Deficit	0	0	0
Spending Subject to Appropriation (Outlays)	*	50	not estimated
Statutory pay-as-you-go procedures apply?	No	Mandate Effects	
Increases on-budget deficits in any of the four consecutive 10-year periods beginning in 2032?	No	Contains intergovernmental mandate?	No
		Contains private-sector mandate?	No
* = between zero and \$500,000.			

S. 451 would require the National Institute of Standards and Technology (NIST) to implement recommendations from a report on the use of fiber reinforced composite materials in infrastructure projects. The report recommends that NIST test the composites' durability and develop industry standards for their use in infrastructure projects; establish a clearinghouse for information on their design, manufacture, and use; and disseminate educational and training information to academia and private industry.¹

Using information from NIST, CBO expects the agency would incur the following costs over the 2022-2026 period:

- \$26 million for research grants and contracting costs;
- \$20 million for salaries for 20 new employees, including scientists, engineers, and software developers at a cost of \$245,000 per employee (adjusted each year for anticipated inflation); and
- \$4 million for materials and equipment.

1. See Richard J. Sheridan and others, *Road Mapping Workshop Report on Overcoming Barriers to Adoption of Composites in Sustainable Infrastructure*, NIST SP-1218 (National Institute of Standards and Technology, December 2017), <https://go.usa.gov/xyJt7>.



In total, and assuming appropriation of the estimated amounts, CBO estimates that implementing S. 451 would cost \$50 million over the 2022-2026 period.

The costs of the legislation, detailed in Table 1, fall within budget function 370 (commerce and housing credit).

Table 1.
Estimated Increases in Spending Subject to Appropriation Under S. 451

	By Fiscal Year, Millions of Dollars					2022-2026
	2022	2023	2024	2025	2026	
National Institute of Standards and Technology						
Estimated Authorization	*	14	14	12	12	52
Estimated Outlays	*	12	14	12	12	50

* = between zero and \$500,000.

The CBO staff contact for this estimate is David Hughes. The estimate was reviewed by H. Samuel Papenfuss, Deputy Director of Budget Analysis.